



ARIZONA CLIMATE CHANGE ADVISORY GROUP MEETING

#4

MARCH 17, 2006



TODAY'S AGENDA

- 1. CALL TO ORDER**
- 2. REVIEW OF MEETING AGENDA**
- 3. APPROVAL OF THIRD CLIMATE CHANGE ADVISORY GROUP (CCAG) MEETING SUMMARY**
- 4. REVIEW OF CCAG PROGRESS AND NEXT STEPS**
- 5. REVIEW AND CONSIDERATION FOR POSSIBLE APPROVAL OF POLICY PROPOSALS**
- 6. REVIEW OF TWG PROGRESS ON STATE GHG GOALS AND CROSS CUTTING ISSUES**
- 7. REVIEW OF FINAL REPORT OUTLINE AND SCHEDULE**
- 8. CALL TO THE PUBLIC**
- 9. ANNOUNCEMENTS, DISCUSSION OF AGENDA ITEMS AND TIME FOR NEXT MEETING**

REVIEW OF TEN STEP PLAN

1. DEVELOP INITIAL GHG INVENTORIES AND FORECASTS
2. IDENTIFY CONCEIVABLE GHG MITIGATION OPTIONS
3. IDENTIFY INITIAL PRIORITIES FOR EVALUATION
4. EVALUATION OF GHG SAVINGS, COSTS AND OTHER ISSUES FOR INDIVIDUAL OPTIONS
5. IDENTIFY BARRIERS, ALTERNATIVE POLICY DESIGN NEEDS FOR INDIVIDUAL OPTIONS
6. MODIFY, ADD OR SUBTRACT OPTIONS AS NEEDED
7. EVALUATE CUMULATIVE RESULTS OF OPTIONS
8. ITERATE TO CONSENSUS, WITH VOTES AS NEEDED
9. AGGREGATE OPTIONS INTO IMPLEMENTATION SCENARIOS
10. FINALIZE RECOMMENDATIONS AND REPORT LANGUAGE

DRAFT POLICY DESCRIPTIONS

1. POLICY DESCRIPTION
2. BAU POLICIES/PROGRAMS
3. TYPES(S) OF GHG BENEFIT(S)
4. TYPES OF ANCILLARY BENEFITS AND OR COSTS
5. ESTIMATED GHG SAVINGS AND COSTS PER MMTCO₂E
6. DATA SOURCES, METHODS AND ASSUMPTIONS
7. KEY UNCERTAINTIES
8. DESCRIPTION OF ANCILLARY BENEFITS AND COSTS, IF NEEDED
9. DESCRIPTION OF FEASIBILITY ISSUES, IF NEEDED
10. STATUS OF GROUP APPROVAL
11. LEVEL OF GROUP SUPPORT
12. BARRIERS TO CONSENSUS

DECISION CRITERIA

- 1. GHG REDUCTION POTENTIAL (CO₂E)**
- 2. DIRECT COST PER TON GHG REMOVED**
- 3. ANCILLARY ISSUES**
 - CO-BENEFITS, COSTS, ETC.**
- 4. FEASIBILITY ISSUES**
 - TECHNICAL, ECONOMIC, MARKET, PROGRAMMATIC, POLITICAL**

TWG PRIORITIES

TWG	# CURRENT PRIORITIES FOR ANALYSIS
ENERGY SUPPLY	12
RCI	12
TRANSPORTATION AND LAND USE	7
AGRICULTURE AND FORESTRY	15
CROSS CUTTING ISSUES	4
TOTAL	50

BREAK



RCI OPTIONS

- **SEE HANDOUT - TABLE 5**
 - **DEMAND-SIDE EFFICIENCY FUNDS, INCENTIVES, AND PROGRAMS**
 - **STATE LEADERSHIP PROGRAMS**
 - **APPLIANCE STANDARDS**
 - **BUILDING STANDARDS/CODES FOR SMART GROWTH**
 - **“BEYOND CODE” BUILDING DESIGN INCENTIVES AND PROGRAMS FOR SMART GROWTH**
 - **DISTRIBUTED GENERATION/COMBINED HEAT AND POWER**
 - **DISTRIBUTED GENERATION/RENEWABLE ENERGY APPLICATIONS**
 - **ELECTRICITY PRICING STRATEGIES**
 - **MITIGATING HIGH GWP GAS EMISSIONS (HFC, PFC)**
 - **DEMAND-SIDE FUEL SWITCHING**
 - **INDUSTRIAL SECTOR GHG EMISSIONS TRADING OR COMMITMENTS**
 - **DEMAND-SIDE SOLID WASTE/WASTEWATER MANAGEMENT**

BREAK



ES OPTIONS

- **SEE HANDOUT - TABLE 3**
 - **RENEWABLE AND LOW-EMITTING ENERGY**
 - ENVIRONMENTAL PORTFOLIO STANDARD
 - PUBLIC BENEFIT CHARGE FUNDS
 - DIRECT RENEWABLE ENERGY SUPPORT: INCLUDING TAX CREDITS AND INCENTIVES, R&D, AND SITING/ZONING
 - **EMISSIONS POLICIES**
 - GHG CAP AND TRADE
 - GENERATION PERFORMANCE STANDARDS
 - CARBON INTENSITY TARGET
 - VOLUNTARY UTILITY CO₂ TARGETS AND/OR TRADING
 - CO₂ TAX
 - **GRID AND UTILITY POLICIES**
 - REDUCE BARRIERS TO RENEWABLES AND CLEAN DG
 - METERING STRATEGIES
 - PRICING STRATEGIES
 - INTEGRATED RESOURCE PLANNING

BREAK



TLU OPTIONS

- **SEE HANDOUT - TABLE 7**
 - **PASSENGER VEHICLE GHG EMISSION RATES**
 - CALIFORNIA GHG EMISSION STANDARDS (THIS INCLUDES PHASE II OF THESE STANDARDS IF ADOPTED BY CALIFORNIA)
 - **LAND USE AND LOCATION EFFICIENCY**
 - SMART GROWTH BUNDLE OF OPTIONS
 - **INCREASING LOW-GHG TRAVEL OPTIONS**
 - MULTIMODAL TRANSIT BUNDLE OF OPTIONS
 - **FREIGHT**
 - PROMOTE IDLE REDUCTION TECHNOLOGIES
 - ENFORCE ANTI-IDLING
 - **FUELS**
 - STANDARDS AND ENFORCEMENT FOR BIODIESEL AND ETHANOL FUELS
 - GASOLINE TAX

FORESTRY OPTIONS

- **SEE HANDOUT - TABLE 9**
 - **FORESTLAND PROTECTION FROM DEVELOPED USES**
 - **REFORESTATION/RESTORATION OF FORESTLAND**
 - **FOREST ECOSYSTEM MANAGEMENT – RESIDENTIAL LANDS (INCLUDING EXPANDED USE OF BIOMASS ENERGY AND HARVESTED WOOD PRODUCTS)**
 - **FOREST ECOSYSTEM MANAGEMENT – OTHER LANDS (INCLUDING EXPANDED USE OF BIOMASS ENERGY AND HARVESTED WOOD PRODUCTS)**
 - **IMPROVED COMMERCIALIZATION OF BIOMASS GASIFICATION AND COMBINED CYCLE**

AGRICULTURE OPTIONS

- **SEE HANDOUT - TABLE 9**
 - **MANURE MANAGEMENT – MANURE DIGESTERS**
 - **MANURE MANAGEMENT – LAND APPLICATION**
 - **BIOMASS FEEDSTOCKS FOR ELECTRICITY OR STEAM/DIRECT HEAT**
 - **ETHANOL PRODUCTION**
 - **CHANGE FEEDSTOCKS (OPTIMIZE NITROGEN FOR N₂O REDUCTION) CHANGE FEEDSTOCKS**
 - **NON FARM FERTILIZER USE**
 - **GRAZING MANAGEMENT**
 - **CONVERT LAND TO GRASSLAND OR FOREST**
 - **AGRICULTURAL LAND PROTECTION FROM DEVELOPED USES**
 - **PROGRAMS TO SUPPORT LOCAL FARMING/BUY LOCAL**

BREAK



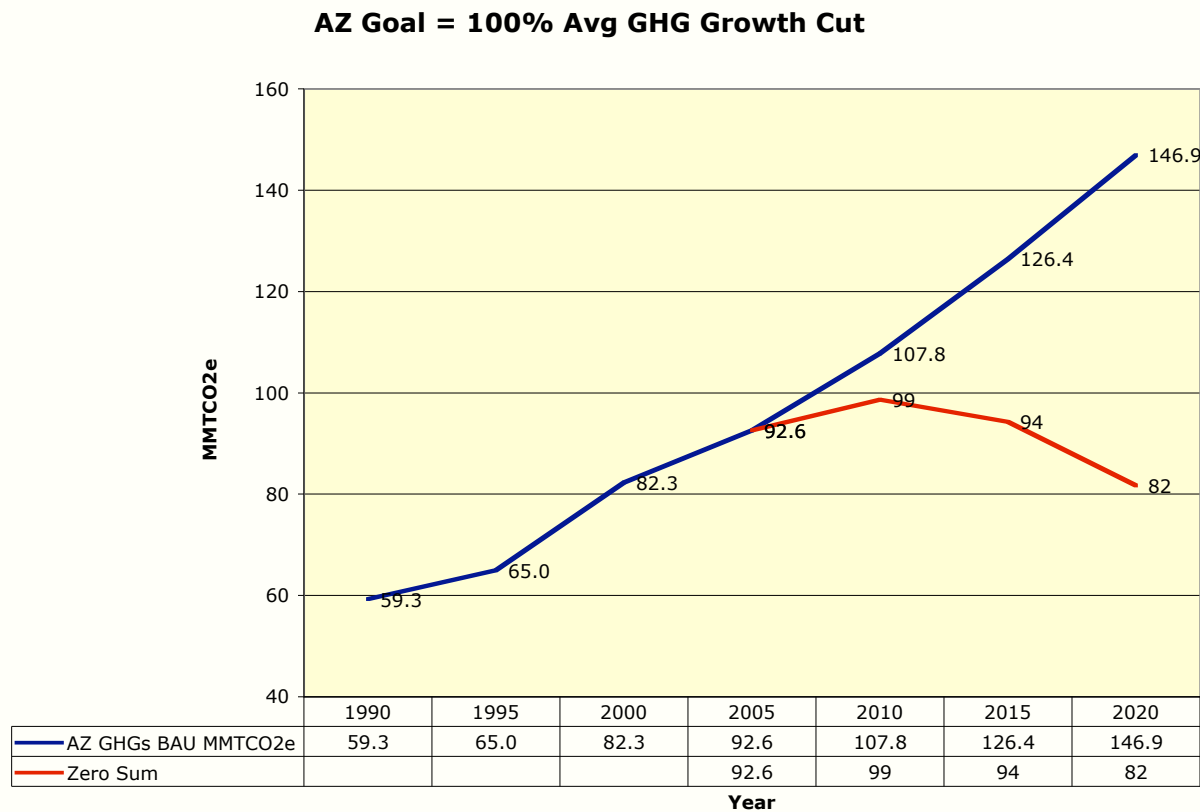
CROSS CUTTING OPTIONS

- **SEE HANDOUT - TABLE 11**
 - **STATEWIDE GHG GOAL**
 - **STATE GHG REPORTING SYSTEM**
 - **STATE GHG REGISTRY**
 - **STATEWIDE GHG EDUCATION PROGRAMS**

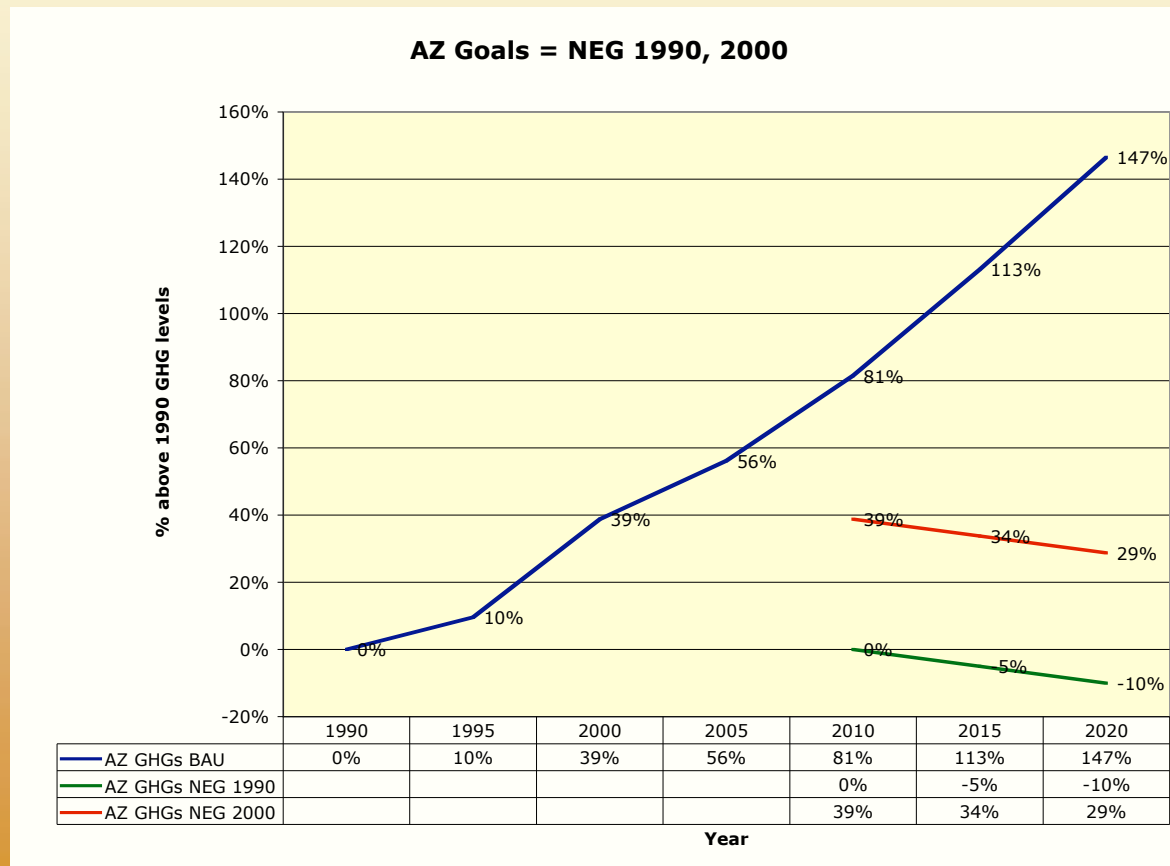
GHG GROWTH & GOALS

STATE	1990-2020 FORECAST	GHG GOALS	PLANNING RESULT
AZ	147%	?	TBD
CA	34%	2000 BY 2010; 10% BELOW BY 2020; 75% BY 2050	TBD
CT	32%	1990 BY 2010; 10% BELOW BY 2020; 75% BY 2100	100%
MA	?	1990 BY 2010; 10% BELOW BY 2020; 75% BY 2100	?
ME	34%	1990 BY 2010; 10% BELOW BY 2020; 75% BY 2100	100%
NC	122%	?	TBD
NEG	?	1990 BY 2010; 10% BELOW BY 2020; 75% BY 2100	TBD
NJ	?	5% -1990 BY 2005	100%
NM	64%	2000 BY 2012; 10% BELOW BY 2020; 75% BY 2050	TBD
NY	24%	5% BELOW 1990 BY 2010	?
OR	38%	1990 BY 2010; 10% BELOW BY 2020; 75% BY 2100	85%
PS/WA	37%	1990 BY 2010; 10% BELOW BY 2020; 75% BY 2100	100%
RI	35%	1990 BY 2010; 10% BELOW BY 2020; 75% BY 2100	100%

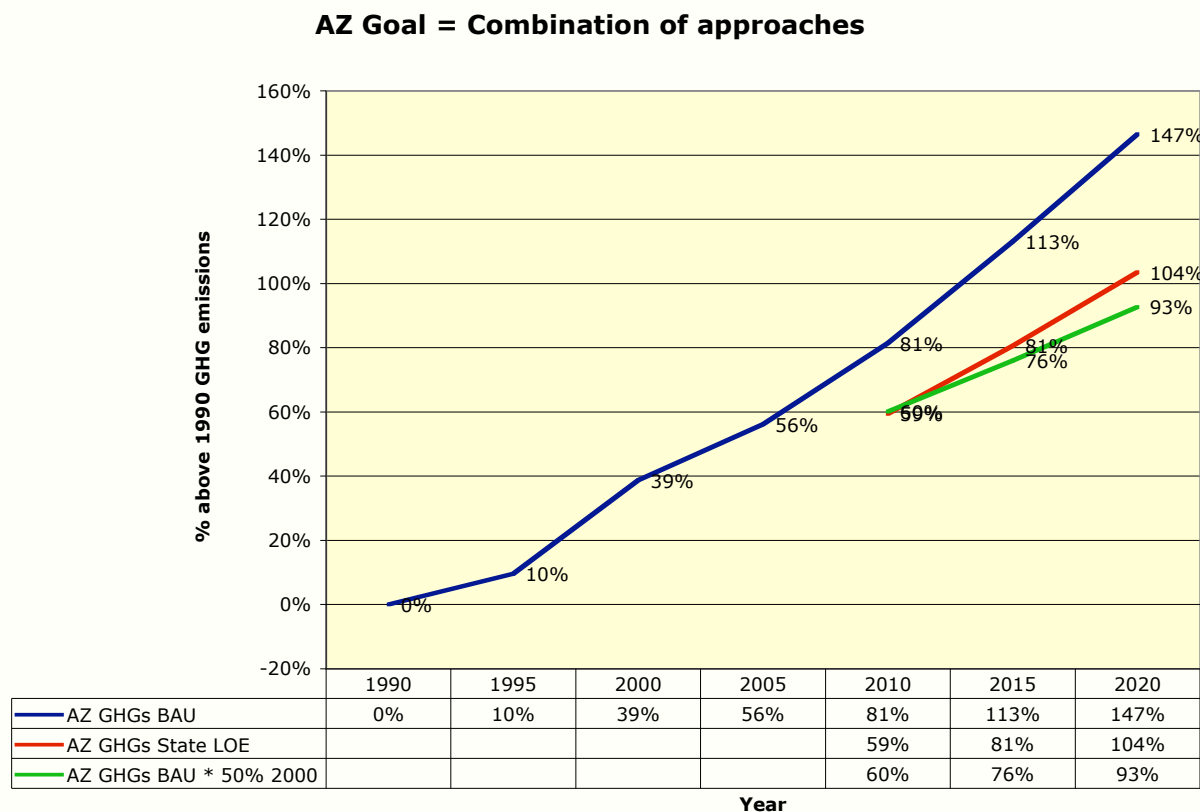
100% AVG TOTAL GHG GROWTH CUT 2005-2020



NEG/ECP AND OTHER STATES FIXED GOALS APPLIED TO AZ

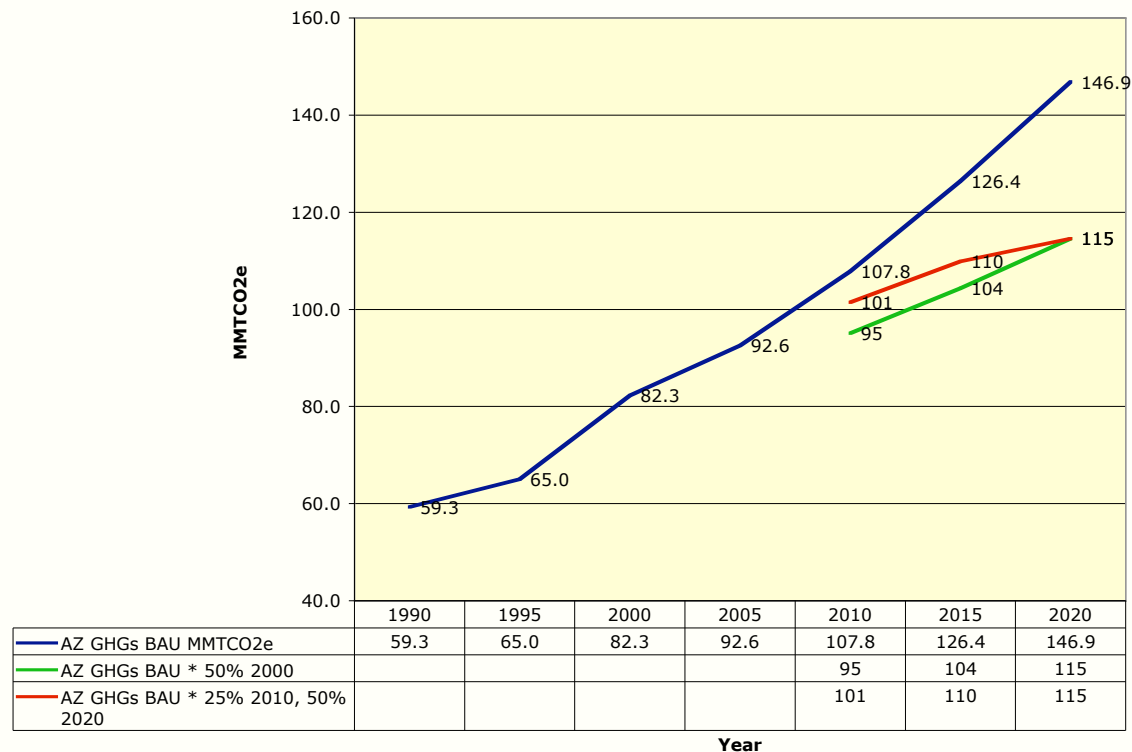


OTHER STATES RELATIVE GHG CUT & 50% TOTAL GHG CUT



50% CUT IN TOTAL GHG GROWTH & GRADUATED 25%-50% CUT

AZ Goal = 50% v. 25%/50% GHG Growth Cuts



BREAK



NEXT STEPS TWGs

- **TWGs WORK ON:**
 - **QUANTIFY AND OR DRAFT LANGUAGE FOR POLICY OPTIONS**
 - **DEVELOP ALTERNATIVE APPROACHES AS NEEDED**
 - **DEVELOP NEW STRAW PROPOSALS AS NEEDED**
 - **DEVELOP IMPLEMENTATION MECHANISMS**
 - **CLARIFY OTHER TECHNICAL ELEMENTS OF THE POLICY DESIGN TEMPLATE AS NEEDED**

DRAFT CCAG REPORT

- EXECUTIVE SUMMARY
- BACKGROUND, PURPOSE AND GOALS
 - DESCRIPTION OF THE PROCESS
 - HISTORY AND STATUS OF STATE ACTIONS
 - STATE EMISSIONS INVENTORY & FORECAST
- POLICY RECOMMENDATIONS & RESULTS
 - AGRICULTURE AND FORESTRY
 - ENERGY SUPPLY
 - RESIDENTIAL, COMMERCIAL, INDUSTRIAL
 - TRANSPORTATION & LAND USE
 - WASTE MANAGEMENT
 - CROSS CUTTING ISSUES
- APPENDICES

PUBLIC INPUT, ANNOUNCEMENTS

AGENDA NEXT MEETING

- **POLICY OPTIONS**
 - **DISCUSSION OF ASSESSMENTS AND OR TEXT FOR DRAFT POLICY OPTIONS, MODIFICATION AS NEEDED**
- **STATE GHG GOALS**
 - **DISCUSSION AND POSSIBLE APPROVAL OF TWG PROPOSALS, MODIFICATION AS NEEDED**
- **FINAL REPORT UPDATE**

DATE NEXT CCAG MEETING

- **SUGGESTED:**
 - LATE MAY, 2006
 - PHOENIX